

Strand: Number Sense and Numeration

Grade: 5

School: Folkstone Public School

Lesson Goal	To move students from 2 digit by 1 digit division to 3 digit by 1 digit division, using their own strategies
Curriculum Expectations	<ul style="list-style-type: none">- Divide three-digit whole numbers by one-digit whole numbers, using concrete materials, estimation, student-generated algorithms, and standard algorithms- Use estimation when solving problems involving the addition, subtraction, multiplication, and division of whole numbers, to help judge the reasonableness of a solution
Big Idea(s)	Operational sense

3 Part Lesson Plan		Materials
Getting Started (Minds On...)		
Instructional Grouping: Pairs - Whole Class <ul style="list-style-type: none">- Teacher sets the context for the problem by discussing the upcoming grade 5 graduation and asking students to talk to their partner about what needs to be set up for that day- Students share their ideas with the class- If students don't bring it up on their own, teacher mentions that chairs need to be set up for students and parents		
Working On It (Action!)		
Instructional Grouping: Pairs <ul style="list-style-type: none">- Students are told that the school custodian needs help determining how many rows of chairs to set up for graduation- Students can choose between one of two parallel tasks:<ul style="list-style-type: none">a) <i>For graduation, the custodian has to set up the stage for students. There are 72 students graduating. The custodian can only make rows of 6 chairs. How many rows are needed?</i>b) <i>For graduation, the custodian has to set up the gym for parents. There are 165 parents attending. The custodian can only make rows of 6 chairs. How many rows are needed?</i>- Students are asked to estimate how many rows are needed before beginning the task- Students are given chart paper and markers to record their thinking. Base 10 blocks and snap cubes are also provided- Polya's problem solving is posted for student reference		<ul style="list-style-type: none">- Chart paper- Markers- Base 10 blocks- Snap cubes- Polya's problem solving model (from page 13 of math curriculum)
Reflecting and Connecting (Consolidate/Debrief)		
Debrief Strategy: Bansho <ul style="list-style-type: none">- Referring to Polya's problem solving model, the teacher walks the students through the tasks, asking what information they were given and what they needed to find out- Using bansho, the teacher makes connections between different strategies including: arrays, repeated addition, t-charts, multiplication, and division algorithms- A student is asked to demonstrate how they used the division algorithm to solve task a. Another student is then asked to demonstrate how they used the algorithm to solve task b- Teacher walks students through the process of three digit by two		

digit division using a standard algorithm	
Follow-up	
Students will be given a similar task to see how many are using more efficient strategies such as the algorithms	

Lesson adapted from the Guides to Effective Instruction in Math, NS&N, Vol. 4, p. 48
http://www.eworkshop.on.ca/edu/resources/guides/NSN_vol_4_Division.pdf